

[METHOD FOR MAKING ELECTRICAL CONNECTION TO ULTRASONIC TRANSDUCER THROUGH ACOUSTIC BACKING MATERIAL]

Abstract of Disclosure

RD-28,66827In an ultrasonic transducer, the transducer elements are electrically connected to the pulsers via throughholes in an acoustic backing layer. Electrically conductive material is deposited on the front face of the acoustic backing layer and later diced to form conductive pads, and on the walls of the throughholes or vias to form conductive traces having exposed ends that will be connected later to a printed circuit. The holes in the acoustic backing layer are then filled with acoustic attenuative material. The signal electrodes on the rear faces of the transducer elements are electrically connected to the printed circuit via the conductive pads and the conductive traces of the acoustic backing layer. A common ground connection is disposed between the front faces of the transducer elements and the acoustic impedance matching layer, which ground connection exits the transducer pallet from the side.

Figures